

# **Land Use Control Implementation Plan**

## **IRP SITE DESIGNATION**

**Etching Shop Draining Pit:** IRP Site Code WP-11, RCRA Site Code SWMU 16.

**Silver Recovery Area:** IRP Site Code WP-11, RCRA Site Code SWMU 37.

## **SITE LOCATION**

Keesler Air Force Base (AFB) is located within the city limits of Biloxi, Harrison County, Mississippi, approximately 80 miles east of New Orleans, Louisiana and 60 miles west of Mobile, Alabama. The Etching Shop Draining Pit (SWMU 16) and the Silver Recovery Area (SWMU 37) are located on the northern end of Keesler AFB. These sites are located adjacent to Building 231 that is bounded on the west by taxiway number 6 and on the east by H Street.

## **SITE DESCRIPTION**

The Etching Shop Draining Pit (SWMU 16) is located on the southeast side of Building 231 adjacent to H Street. This area was used from the early 1970's to 1981 for the disposal of wastewater from the Training Aids Etching Shop. Wastes from the Etching Shop were piped to the pit, which existed as an open french drain leading to three buried 55-gallon drums containing limestone gravel. The drums served as a leaching bed. In 1981, the drainage pit was closed and the wastes were piped to the sanitary sewer. Wastes disposed in the pit may have consisted of acids, organic solvents (such as toluene and xylene), ferric chloride, and potassium ferricyanide. In addition, the wastewater potentially included dissolved/suspended metals including copper, nickel, and chromium.

The Silver Recovery Area (SWMU 37) is located outside the exterior of Building 231 approximately 100 feet northeast of SWMU 16. Photo processing fluids were originally discharged directly from the development room to an outdoor pit. The pit may have contained a buried drum that served as a leaching bed. A separation unit was added to remove reusable silver waste photography processing fluids from the Medical Center and Visual Services building. Effluent was allowed to drain directly onto the soil around the separator. Later, electrolytic silver recovery was attempted; it is not known if any reusable silver was ever actually recovered. The exact location of the pit has never been established. This practice was stopped with the startup of the Defense Reutilization and Marketing Office silver recovery unit.

Additional information on SWMU16/37 can be found in the RCRA Facility Investigation Report for the Group 1 Sites (Parsons, April 1999) and the Statement of

Basis for SWMU 16/37, (Parsons, May 2001). These documents are available in the Keesler AFB Administrative Record and Information Repository.

## **LAND USE CONTROL OBJECTIVES**

The recommended corrective action for SWMU 16/37 included long-term groundwater monitoring and land use controls. Investigations and studies conducted at the site indicate that potential risks do exist to receptors. Long-term monitoring of groundwater will be conducted and evaluated annually until contaminant concentrations drop below corrective action objectives or until the USEPA and MDEQ decide the sampling interval can be extended or it is no longer necessary to continue. Fourteen wells will be sampled annually. The samples will be analyzed for volatile organic compounds and metals. The Project Plan for Long-Term Monitoring for SWMU 16/37 (Parsons, August 2001) contains the details of the required monitoring.

The purpose of establishing LUCs for SWMU 16/37 is to ensure that the corrective measures are protective of human health and the environment. The human health risk assessment conducted for this site determined that soil and groundwater pose a potential risk to hypothetical future residents. Therefore, current and future use of the property will be restricted and residential development will not be allowed without further corrective action to reduce or eliminate the potential risks. Groundwater withdrawal or use will not be allowed within the boundaries of or near the site. The area affected by the LUCs is shown on [Figure 1](#). The area of restricted shallow groundwater use is shown on [Figure 2](#). This LUCIP also serves as a Corrective Measures Implementation Plan (CMIP), as required to implement a remedy, pursuant to RCRA.

## **LAND USE CONTROL IMPLEMENTATION TO ACHIEVE OBJECTIVES**

By separate Memorandum of Agreement (MOA) dated August 15, 2000, USEPA and Keesler AFB, on behalf of the Department of the Air Force, agreed to implement basewide, certain periodic site inspections, condition certification, and agency notification procedures designed to ensure the maintenance by Keesler AFB personnel of any site specific LUCs deemed necessary for future protection of human health and the environment. In addition to the LUCs, long-term monitoring of groundwater will be implemented.

The Environmental Restoration Program Manager (ERPM) will be responsible for implementing and maintaining the LUCs and this LUCIP will be referenced in appropriate Keesler AFB basewide planning documents. The LUCs established for SWMU 16/37 are listed below and the implementation and maintenance procedures are described in detail in the following section of this document.

- The property is restricted from residential use or development.
- The shallow aquifer under or near the site shall not be used as a water supply source for any use: potable, industrial, or irrigation.
- Digging into the land surface and soil removal are prohibited without approval of the ERPM.

- No structure shall be built or demolished on the site without prior notification and approval of the ERPM.
- Maintenance or replacement of existing underground utilities, buildings, and roadways in the same or new locations on the site is restricted without notification and approval of the ERPM.

## **DOCUMENTING AND MAINTAINING LAND USE CONTROLS**

- For major land use changes, written requests will be submitted to USEPA in accordance with the mutually approved LUCAP. Requests will be submitted as soon as a major land use change is anticipated, to allow 90 days for regulatory review and review of remedy selection decision documents.
- The site will be inspected on an annual basis to ensure that unauthorized use does not occur and that the status of the site is unchanged. The SWMU 16/37 Land Use Controls Annual Inspection Checklist is included as **Attachment A**. The Air Force will submit an annual site status report to USEPA in accordance with the LUCAP. The Air Force will notify USEPA upon the discovery of any unauthorized change in land use.
- These LUCs will be documented in the Keesler AFB Basewide Comprehensive Plan on an annual basis.
- SWMU 16/37, as referenced in the LUCs detailed above, is the area shown on **Figure 1**.

## **RECURRENT REVIEW OF LAND USE CONTROLS**

Revalidation of LUCs will be conducted every five years to determine if it is appropriate to amend or remove them. At each revalidation, Keesler AFB will evaluate whether site conditions warrant LUC removal or amendment consideration. If so, requirements for any assessment activities based on risk considerations will be evaluated by Keesler AFB and USEPA. A revalidation request report will be prepared by Keesler AFB and submitted to USEPA.

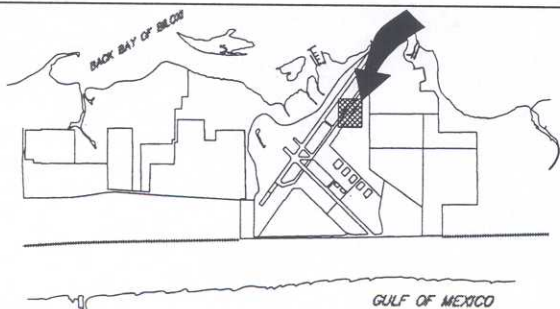
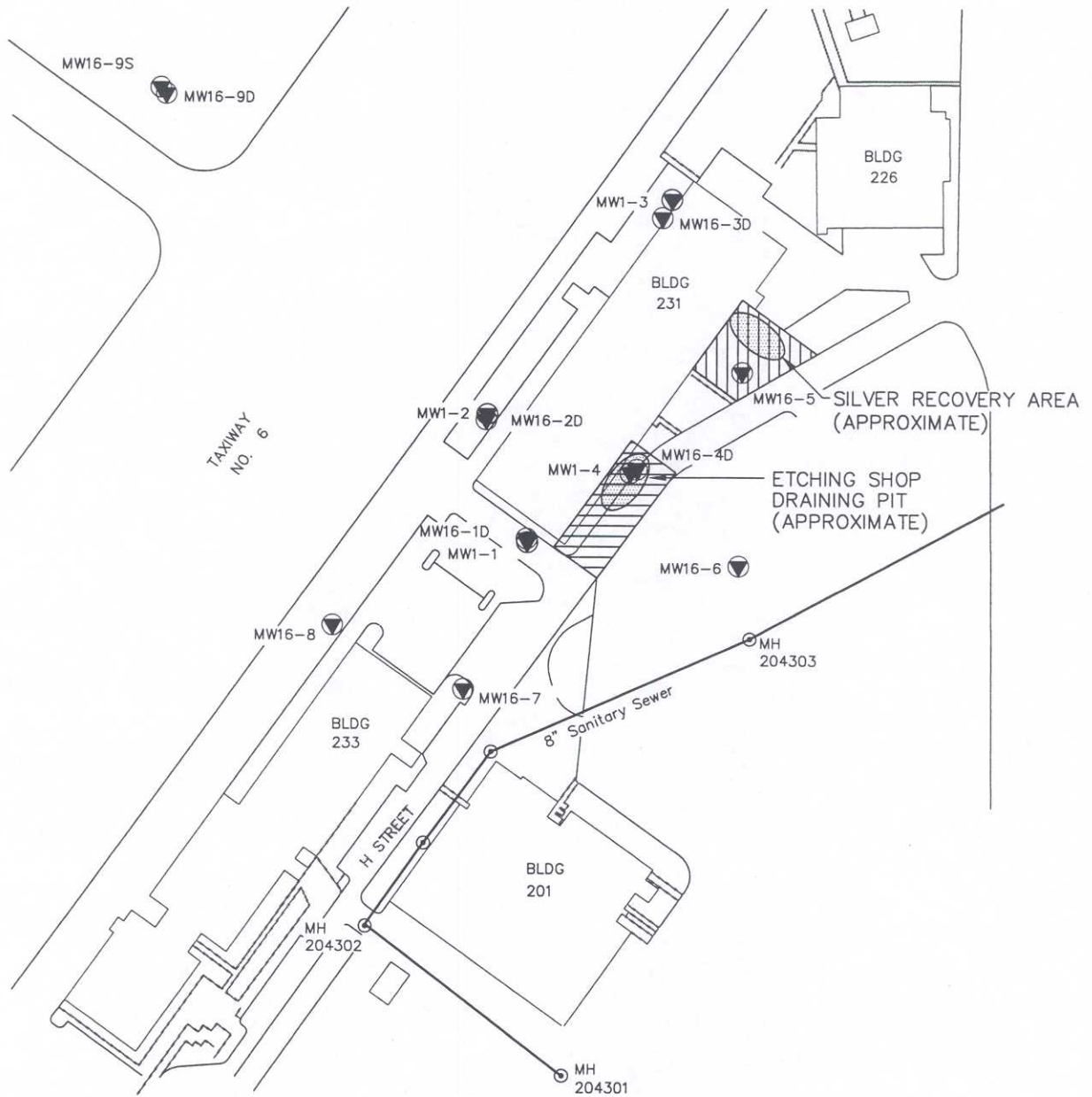
## **MAJOR LAND USE CHANGE EVALUATION**

To be considered for a land use change, reassessment of corrective actions for SWMU 16/37 will be conducted by Keesler AFB as part of the RCRA Permit. Additional investigations and studies may be required to evaluate any proposed changes.

## **DECISION DOCUMENTS**

The recommendations from the Statement of Basis for SWMU 16/37 dated May 2001 were long-term groundwater monitoring and land use controls. This SB was open for public comment from June 1, 2001 to July 15, 2001. The SB was approved in August 2001.

**Figure 1**  
**Etching Shop Draining Pit and Silver**  
**Recovery Area (SWMU 16/37)**  
**Land Use Restrictions Area**



**KEY MAP**



0 160  
**SCALE**

**NOTE:**  
*Location of Sewer Line is Approximate.*

**LEGEND**

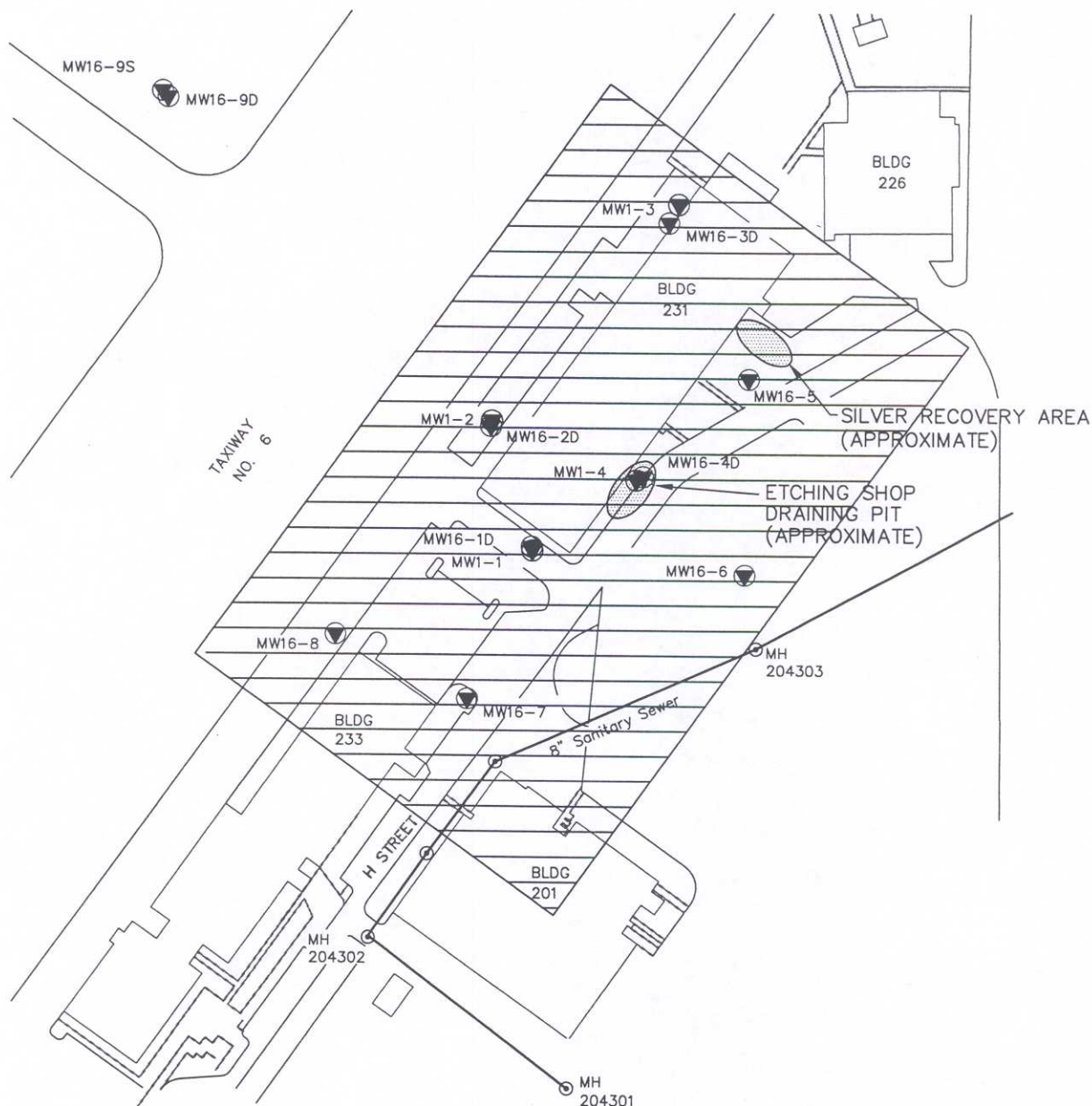


Monitoring Well



Land Use Restrictions Area

Figure 2 Etching Shop Draining Pit and  
Silver Recovery Area (SWMU 16/37)  
Shallow Aquifer Restricted Use Area



NOTE:  
Location of Sewer Line is Approximate.

**LEGEND**

-  Monitoring Well
-  Restricted Use Area



## Attachment A

### Site WP-11 (SWMUs 16 and 37) Land Use Controls Annual Inspection Checklist



## ATTACHMENT A

# Site WP-11 (SWMUs 16/37) Land Use Controls Annual Inspection Checklist

DATE \_\_\_\_\_

DATE OF PREVIOUS INSPECTION \_\_\_\_\_

TIME \_\_\_\_\_

DATE OF NEXT PERIODIC REVIEW \_\_\_\_\_

NAME \_\_\_\_\_

If the answer to any of the following questions deviates from the prescribed LUC, please describe and explain on the attached comment sheet.

Land Use Control	Inspection
The property is restricted from residential use or development (Figure 1).	Figure 1 depicts residential development restrictions. Has residential development occurred within the restricted area?  <b>Yes      No</b>
The shallow aquifer under or near WP-11 shall not be used as a water supply source for any use – potable, industrial, or irrigation.	Figure 2 depicts shallow aquifer use restrictions. Have any wells been completed into the shallow aquifer within the restricted area?  <b>Yes      No</b>
Digging into the land surface and soil removal are prohibited in designated areas without approval of the Environmental Restoration Program Manager (ERPM).	Has digging or excavation taken place in the designated areas?  <b>Yes      No</b>  Was the ERPM notified and was a health and safety plan prepared and approved?  <b>Yes      No</b>
Maintenance of existing utilities or replacement of existing utilities in the same or new location is restricted in designated areas without prior notification of the ERPM.	Have utilities been worked on or replaced, within the buffer zone?  <b>Yes      No</b>  If yes, did the ERPM provide approval?  <b>Yes      No</b>
No structure shall be demolished or built in designated areas without prior notification and approval of the ERPM.	Have any structures been built on the site or demolished?  <b>Yes      No</b>  If yes, did the ERPM provide approval?  <b>Yes      No</b>

This property will be inspected on an annual basis to ensure that unauthorized use does not occur and that status of the property is unchanged.	<p>Was last year's annual inspection for WP-11 completed?</p> <p><b>Yes      No</b></p>
The Air Force will submit an annual site status report to the USEPA in accordance with the mutually approved LUCAP. The Air Force will notify USEPA upon the discovery of any unauthorized change in land use.	<p>Was last year's annual report submitted to the USEPA?</p> <p><b>Yes      No</b></p> <p>Did any unauthorized land use changes occur within the last year?</p> <p><b>Yes      No</b></p> <p>If yes, on what date was the USEPA notified?</p>
For proposed major land use changes,* written requests will be submitted to the USEPA, in accordance with the mutually approved LUCAP. Requests will be submitted as soon as a major land use change is anticipated, to allow sufficient time for regulatory review and amendments to remedy selection decision documents.	<p>Have any major land use changes been requested, since the last inspection report?</p> <p><b>Yes      No</b></p>
These Land Use Controls will be documented in the Keesler AFB Basewide Comprehensive Plan on an annual basis.	<p>Have the Land Use Controls been documented and distributed?</p> <p><b>Yes      No</b></p>

\* Major Land Use Change = Any changes in land use (e.g., from industrial or recreational to residential) that would be inconsistent with those specific exposure assumptions in the human health and/or ecological risk assessments that served as the basis for the LUCs; any site activity that may disrupt the effectiveness of the implemented LUC (for example, excavation at a landfill; groundwater pumping that may impact a groundwater pump and treat system; a construction project that may impact ecological habitat protected by the remedy; removal of a fence; unlocking of a gate, or removal of warning signs); or any site activity intended to alter or negate the need for the specific LUCs implemented at the site.